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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,814	06/18/2001	Jin-Long Chen	18781-001110	5102
20350	7590	03/26/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			CARLSON, KAREN C	
			ART UNIT	PAPER NUMBER
			1653	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,814

Applicant(s)

CHEN ET AL.

Examiner

Karen Cochran Carlson, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/29/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-15 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-15 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/2003
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Applicant's election without traverse of Invention II, Claims 10-15 and 24-27 in the paper filed December 29, 2003. Claims 1-9 and 16-23 have been canceled.

Priority is to July 29, 1998.

The disclosure is objected to because of the following informalities: Cross reference to the parent application must be placed on page 1 of the specification.

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-15 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boss et al. (May 12, 1997; FEBS Lett. 408(1): 39-42) in view of Bathgate et al. (1992; Molecular Microbiology 6(3): 363-370). Boss et al. teach uncoupling protein-3 having the amino acid sequence that is identical to SEQ ID NO: 1 (dependent Claim 26). This protein is encoded by a nucleic acid sequence comprising SEQ ID NO: 2 (dependent Claim 27). The codon at 55Ala is GCC (dependent Claim 24). The codon for 219Thr is ACT (dependent Claim 25).

Boss et al. do not teach operatively linking the nucleic acid sequence encoding uncoupling protein-3 to a promoter, contained in an expression vector, or an expression vector having regulatory elements that control the expression of the nucleic acid encoding uncoupling protein-3, placing the nucleic acid encoding uncoupling protein-3 into a cell, or the cell

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having regulatory elements that control the expression of the nucleic acid encoding uncoupling protein-3, or using recombinant techniques for the production of uncoupling protein-3.

Bathgate et al. teach cDNA encoding uncoupling protein. This cDNA was inserted into vector pKV49 with the inducible GAL1-10 upstream activation site to produce pKV49-UCP. *S. cerevisiae* was transformed with pKV49-UCP and the expressed uncoupling protein isolated via western blot.

It would have been obvious for a person of ordinary skill in the art to insert the nucleic acid sequence encoding uncoupling protein-3 taught by Boss et al. into the vector pKV49 (Claims 10, 11, 12), transform host cells such as *S. cerevisiae* (Claims 13, 14), and recombinantly produce uncoupling protein-3 (Claim 15) because Bathgate et al. teach the successful expression of the analogous protein uncoupling protein when cDNA encoding uncoupling protein is placed into pKV49 and expressed from *S. cerevisiae*.

Prior art of record:

USP 5,741,666, Tartaglia, teach human C5 protein homolog encoded by the nucleic acid sequence depicted in SEQ ID NO:38. See the alignment attached to the patent. This nucleic acid molecule does not encode the first 10 amino acids of instant UCP2, and the codon corresponding to UCP2 amino acid position 55 encodes Val. The instant nucleic acid molecule is not taught in 5,741,666, but would be expected to hybridize to SEQ ID NO:38 - see the claims.

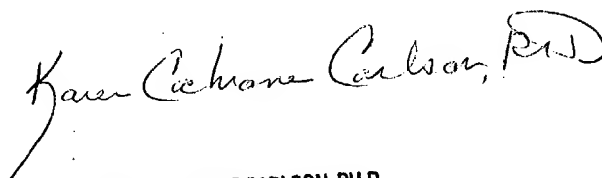
No Claims are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 571-272-0946. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KAREN COCHRANE CARLSON, PH.D.
PRIMARY EXAMINER